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09/967,268	09/28/2001	E. David Neufeld	COMP:0222	5215

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Intellectual Property Administration  
Legal Dept., M/S 35  
P.O. Box 272400  
Ft. Collins, CO 80527-2400

EXAMINER
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NALVEN, ANDREW L

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/967,268

Applicant(s)

NEUFELD, E. DAVID

Examiner

Andrew L. Nalven

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-15, 17-37 are pending.

#### ***Response to Arguments***

2. Applicant's arguments filed 13 August 2005 have been fully considered but they are not persuasive.

3. Applicant's arguments with respect to claims 1-9 are moot in view of the new grounds of rejection.

4. Applicant has argued on pages 12-13 that the Nevis reference fails to teach a "security device comprises a software switch." Examiner respectfully disagrees. Examiner contends that Nevis teaches a "security device comprises a software switch" (Nevis, column 5 lines 15-30). Nevis teaches a comparison being made between hash values in order to determine the validity of the software update. In response to a positive result of the comparison, a software switch allows the updating of the software. Examiner contends that this switch from preventing of the updating to the allowing of the updating is evidence of a security switch.

5. Applicant has argued on pages 13 that the Nevis reference fails to teach that if the network connection fails, re-establishing the network connection and once the network connection is re-established, continuing to load the program into the memory over the re-established network connection. Examiner respectfully disagrees. Examiner contends that Nevis does teach that if the network connection fails, re-

establishing the network connection and once the network connection is re-established, continuing to load the program into the memory over the re-established network connection (Nevis, column 3 lines 51-67) by teaching an update that is downloadable from the Internet. Examiner contends that the re-establishment of a connection following a failed connection is an inherent property of the Internet. The Internet is made up of protocols, including transmission control protocol (TCP) that is designed to ensure packets are delivered and will re-establish connections in the event of a failure.

6. Applicant has argued on page 14 that the Spiegel reference fails to teach verifying a program of an appliance server and if not verified, signaling a host computer to load a replacement program into the appliance server. Examiner respectfully disagrees. Examiner contends that Spiegel teaches verifying a program of an appliance server (Spiegel, column 4 lines 17-39) and if not verified, signaling a host computer to load a replacement program into the appliance server (Spiegel, column 4 lines 40-43). Spiegel teaches the verifying of a program of an appliance server in the form of a firmware hub (Spiegel, column 4 lines 11-24, FWH viewed as appliance server) and that if the verification fails a signal is sent to a host computer to load a replacement program (Spiegel, column 4 lines 17-43).

7. Applicant has argued on page 16 that the Spiegel reference fails to disclose reloading a program that has already been replaced by a program under verification. Examiner respectfully disagrees. Examiner contends that Spiegel teaches reloading a program that has already been replaced by a program under verification (Spiegel, column 4 lines 17-25) by teaching a first block being backed up, a second block being

used to update, and upon failure of that block, the first block being brought back to replaced the failed second block.

### ***Drawings***

8. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when before the application is issued.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The cited claims present the limitation "temporarily loading *only* the boot block program." Examiner has been unable to find support for this limitation in the specification as initially presented.

### ***Claim Rejections - 35 USC § 102***

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10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al US Patent No. 5,870,520.

12. With regards to claims 1 and 9, Lee teaches temporarily loading the boot block program into a first memory (Lee, column 5 lines 3 –16, main memory), verifying the boot block program in the first memory (Lee, column 5 lines 5-11), and if verified, more permanently loading the boot block program into a second memory (Lee, column 5 lines 5-16).

13. With regards to claims 2, Lee teaches the act of temporarily loading comprises loading the boot block program into a random access memory (Lee, column 5 lines 3 –16, main memory).

14. With regards to claims 3, Lee teaches the act of temporarily loading comprises loading the boot block program into volatile memory (Lee, column 5 lines 3 –16, main memory).

15. With regards to claim 4, Lee teaches the act of verifying comprising authenticating the boot block program (Lee, column 5 lines 3 –16, validity of file, boot block).

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16. With regards to claim 5, Lee teaches the act of verifying comprising determining whether the boot block program is operable (Lee, column 5 lines 3 –16, validity of file, boot block).

17. With regards to claim 6, Lee teaches the act of temporarily loading comprises loading the boot block program as part of the firmware to be updated (Lee, column 5 lines 3 –16).

18. With regards to claims 7, Lee teaches the act of more permanently loading comprises the act of loading the boot block program into read only memory (Lee, column 5 lines 3 –16, ROM).

19. With regards to claims 8, Lee teaches the act of more permanently loading comprises the act of flashing the boot block into flash memory (Lee, column 5 lines 3 – 16, flash ROM).

20. Claims 10-15 and 34-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Nevis et al US Patent No. 6,581,159.

21. With regards to claim 10, Nevis teaches a host computer (Nevis, Figure 2 “Firmware”), an appliance server coupled to the host computer where the appliance server has a storage memory and an execution memory (Nevis, Figure 2 “User Mode”), a control operably coupled to the appliance server and to the storage memory to control storage of programs into the storage memory (Nevis, Figure 2, Item 260, Transfer control to firmware), the applicant server being adapted to signal the control to permit the appliance server to storage a program in the storage memory (Nevis, Figure 2 Item

260), a security device operably coupled to the control, the security device being adapted to signal the control to permit the host computer to store a program in the storage memory (Nevis, Figure 2 Item 270), and the security device being a switch (Nevis, column 5 lines 15-30, installs if hash values are correct, the act of installing occurs in response to a stimulus in the form of a correct hash comparison)..

22. With regards to claim 11, Nevis teaches the act of more permanently loading comprises the act of loading the boot block program into read only memory (Nevis, column 3 line 65 – column 4 line 5).

23. With regards to claims 12-13 and 35, Nevis teaches the act of more permanently loading comprises the act of flashing the boot block into flash memory (Nevis, column 3 line 65 – column 4 line 5).

24. With regards to claim 14, Nevis teaches the act of temporarily loading comprises loading the boot block program into a random access memory (Nevis, column 5 lines 4-7).

25. With regards to claim 15, Nevis teaches the act of temporarily loading comprises loading the boot block program into volatile memory (Nevis, column 5 lines 4-7).

26. With regards to claim 34, Nevis teaches all that is described above and further teaches the loading of the program over a network connection (Nevis, column 3 lines 51-58, Internet), and if the network connection fails, re-establishing the network connection and once the network connection is re-established, continuing to load the program into the memory over the re-established network connection (Nevis, column 3 lines 51-58, Internet).



27. Claims 17-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Spiegel et al US Patent No. 6,711,675.
28. With regards to claims 17, Spiegel teaches verifying a program of an appliance server (Spiegel, column 4 lines 38-39) and if not verified, signaling a host computer to load a replacement program into the appliance server (Spiegel, column 4 lines 40-43).
29. With regards to claim 18, Spiegel teaches verifying comprising authenticating the program (Spiegel, column 4 lines 38-39).
30. With regards to claim 19, Spiegel teaches verifying comprising the act of determining whether the program is operable (Spiegel, column 4 lines 38-39).
31. With regards to claim 20, Spiegel teaches act of signaling comprising enabling a security switch (Spiegel, column 4 lines 38-46).
32. With regards to claim 21, Spiegel teaches determining whether a security switch has enabled the host computer to load the replacement program into the applicant server (Spiegel, column 4 lines 42-43).
33. With regards to claim 22, Spiegel teaches the program comprising a boot block program (Spiegel, column 4 lines 38-46, bios).
34. With regards to claim 23, Spiegel teaches the program comprising firmware (Spiegel, column 2 lines 22-36).

***Claim Rejections - 35 USC § 103***

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35. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

36. Claims 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevis et al US Patent No. 6,581,159 in view of Spiegel et al US Patent No. 6,711,675.

37. With regards to claim 24, Nevis teaches everything described above, but fails to teach the reloading of the first program from the execution memory into the storage memory if the second program is not verified. Spiegel teaches the reloading of the first program from the execution memory into the storage memory if the second program is not verified (Spiegel, column 4 lines 40-43, backup bios startup block). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Spiegel's method of responding to failed authentication with Spiegel's method of updating a BIOS because it offers the advantage of allowing reprogramming if tampering is detected (Spiegel, column 1 lines 34-55).

38. With regards to claims 25-26, Nevis as modified teaches the execution memory comprising random access memory (Nevis, column 5 lines 4-7, random access memory).

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39. With regards to claim 27, Nevis as modified teaches storage memory comprising read only memory (Nevis, column 3 lines 65 – column 4 line 5).

40. With regards to claims 28-29, Nevis as modified teaches storage memory comprising non-volatile memory (Nevis, column 3 lines 65 – column 4 line 5, flash memory).

41. With regards to claim 30, Nevis as modified teaches verifying comprising the act of authenticating the second program (Spiegel, column 4 lines 38-39).

42. With regards to claim 31, Nevis as modified teaches the verifying of whether the second program is operable (Spiegel, column 4 lines 41-43, validate backup bios).

43. Claims 36-37 are rejected under 35 U.S.C. 102(e) as being unpatentable over Nevis et al US Patent No. 6,581,159 in view of Holtey US Patent No. 5,491,827.

44. With regards to claim 36, Nevis fails to teach the authenticating of a user directing the loading of the program. Holtey teaches the authenticating of a user directing the loading of the program (Holtey, column 6 lines 1-20). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Holtey's authentication mechanism with Nevis's BIOS update system because it offers the advantage of helping protect configuration information used for power-up or startup of a system (Holtey, column 3 lines 1-14).

45. With regards to claim 37, Nevis as modified teaches continuing to load comprising re-authenticating the user (Holtey, column 6 line 62 – column 7 line 6).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

46. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.



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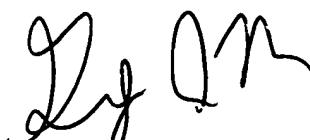
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 571 272 3838. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Nalven

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